arine Corps Joint Experimentatio

Expeditionary Warfare Conference
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Marine Corps Issues Related to Joint Experimentation

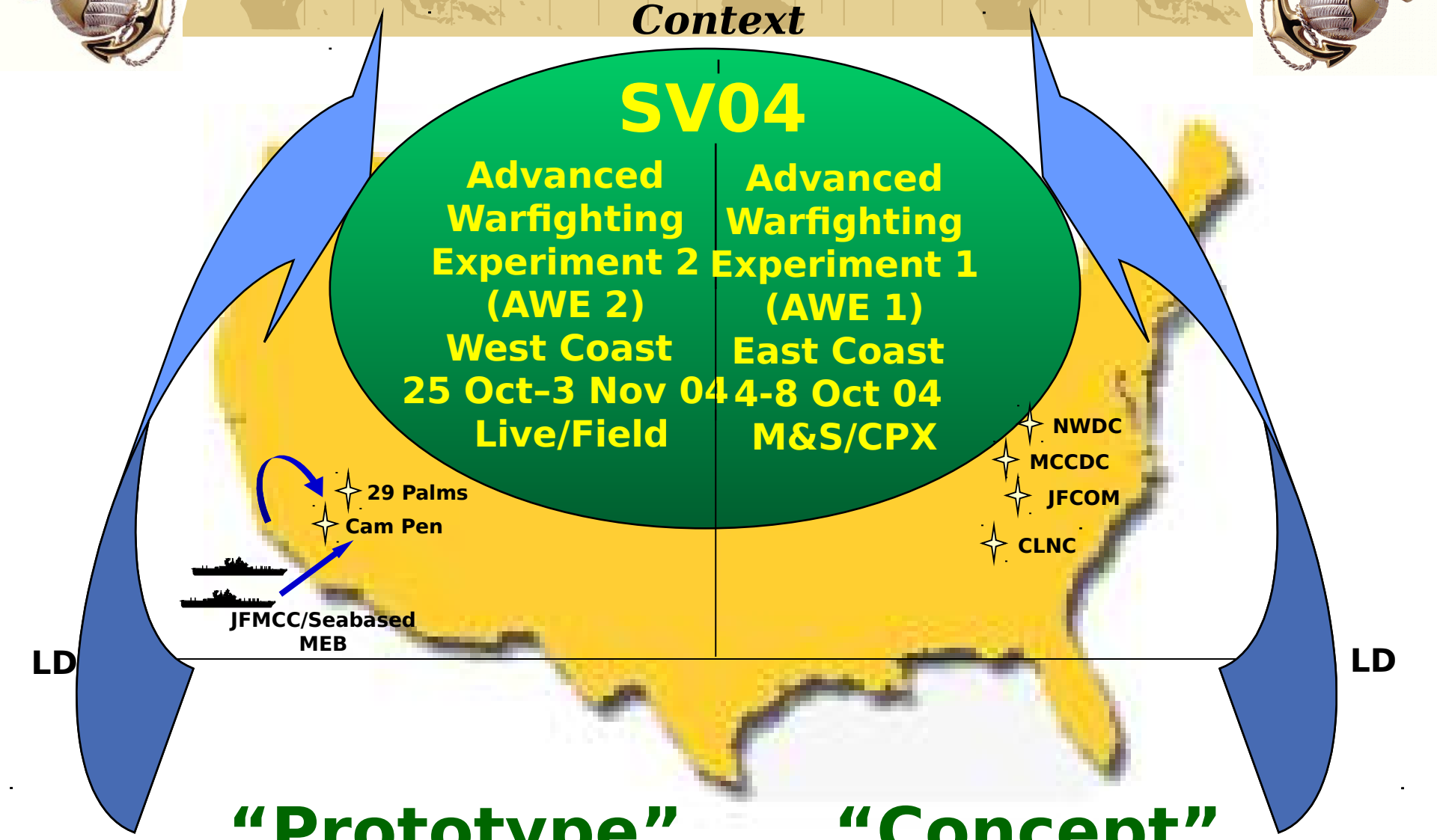
- C4I
  - Over the Horizon/On the Move
  - Ship to Objective Maneuver Bridge / Experimental Tactical Communication System
- Combat Identification
- Joint Seabasing
- Sea Viking 2004

Marine Corps Insights From Recent Joint Experimentation

- Joint Concepts for:
  - Anti-Access
  - Forcible Entry
- Definition of Joint Sea Basing
- Netted Force Capabilities

Sea Viking 04

Coordinated Attack on Naval Transformation in a Joint Context



“Prototype” **“Concept”**

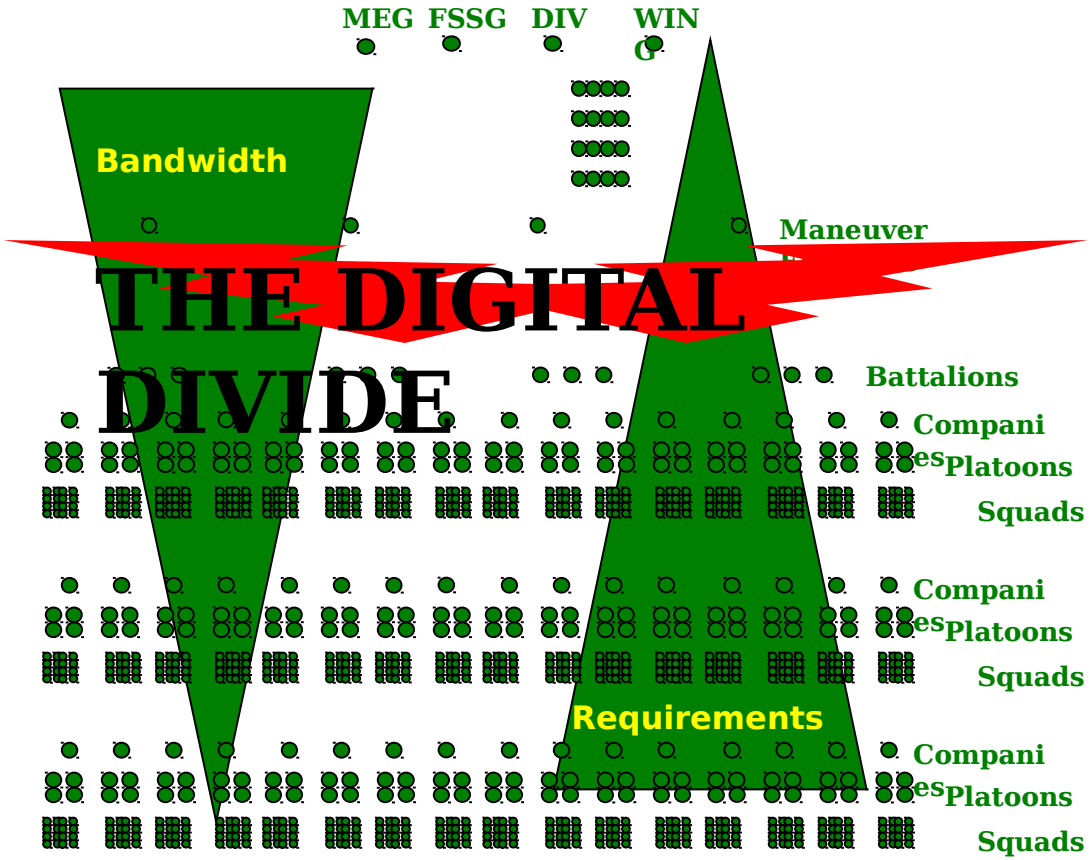
Marine Corps Issues Related to Joint Experimentation

Questions?

BACKUP SLIDES

The Digital Divide

The Need for OTH/OTM Communications



Key Systems

- **BFT**
- **MDACT**
- **SMART-T**
- **MRC-142**
- **PSC-5**

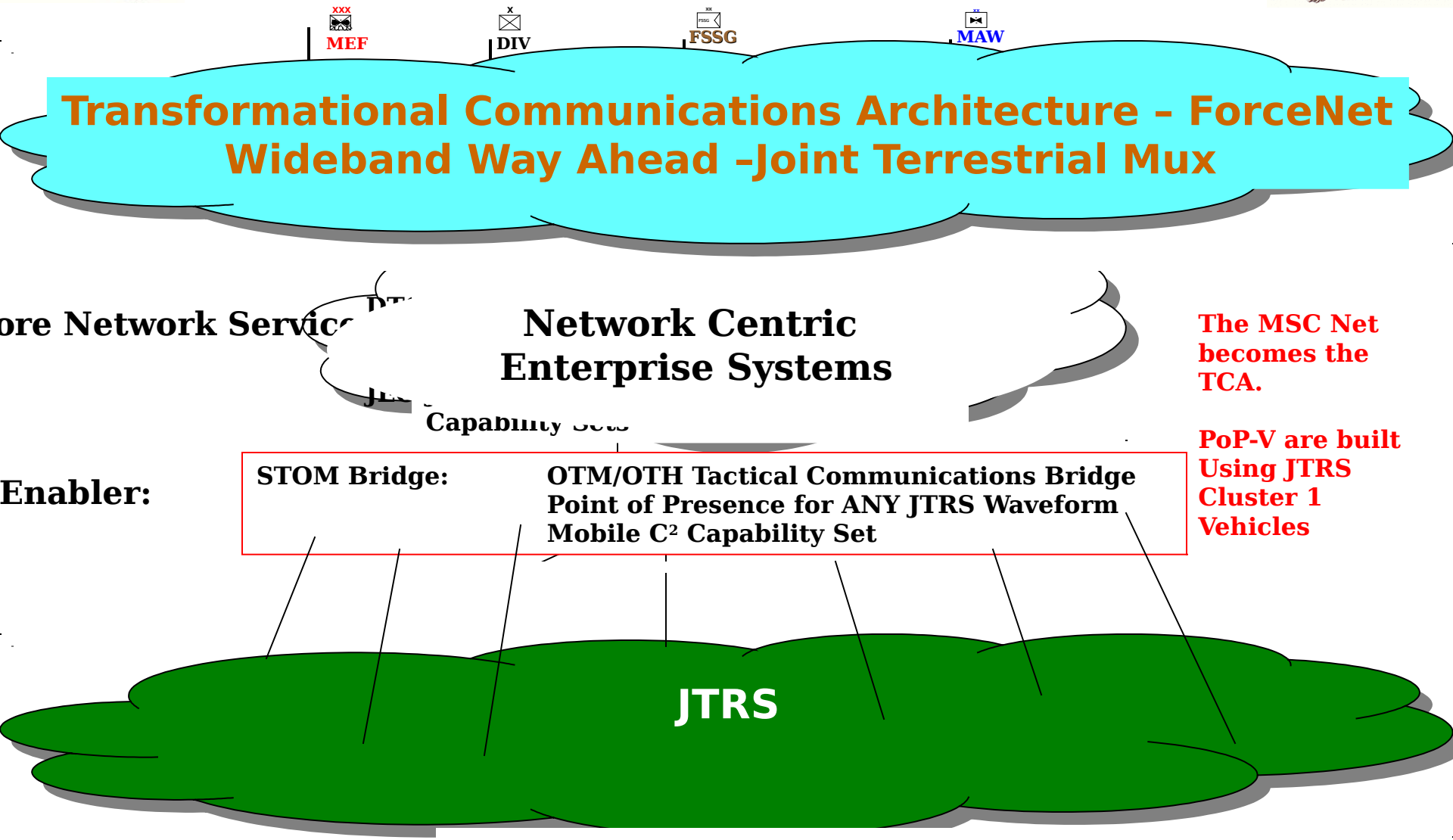
Additional systems must be accompanied by increased bandwidth or improved bandwidth efficiency.

STOM Bridge

What is a STOM Bridge?

- **STOM Bridge is an Architectural Approach designed to:**
  - **Bridge battlefield Command and Control over distance**
  - **Enable Marines anywhere on the battlefield to access data through current T/E systems**
  - **Enables near-term (04-05) development of data networking TTPs**
  - **Provide a stable "Interim Communications Architecture" that remains relevant when JTRS and TCA arrive.**
  - **Shortens the acquisition timeline for C2 capabilities**

Transforming C⁴ from the Ground Up



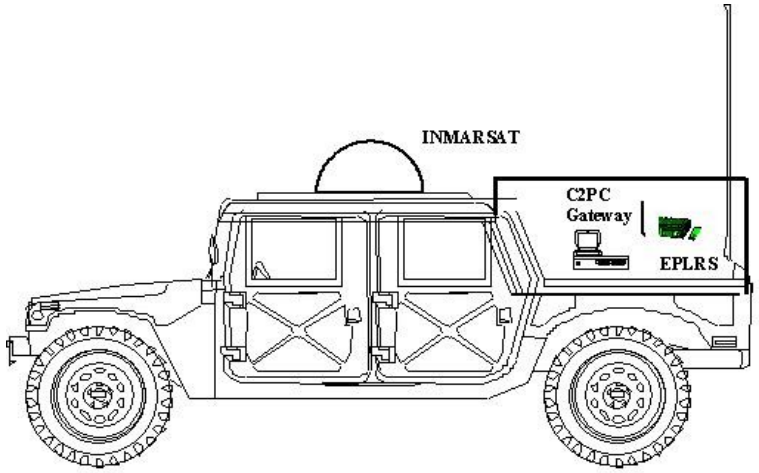
The MSC Net becomes the TCA.

PoP-V are built Using JTRS Cluster 1 Vehicles

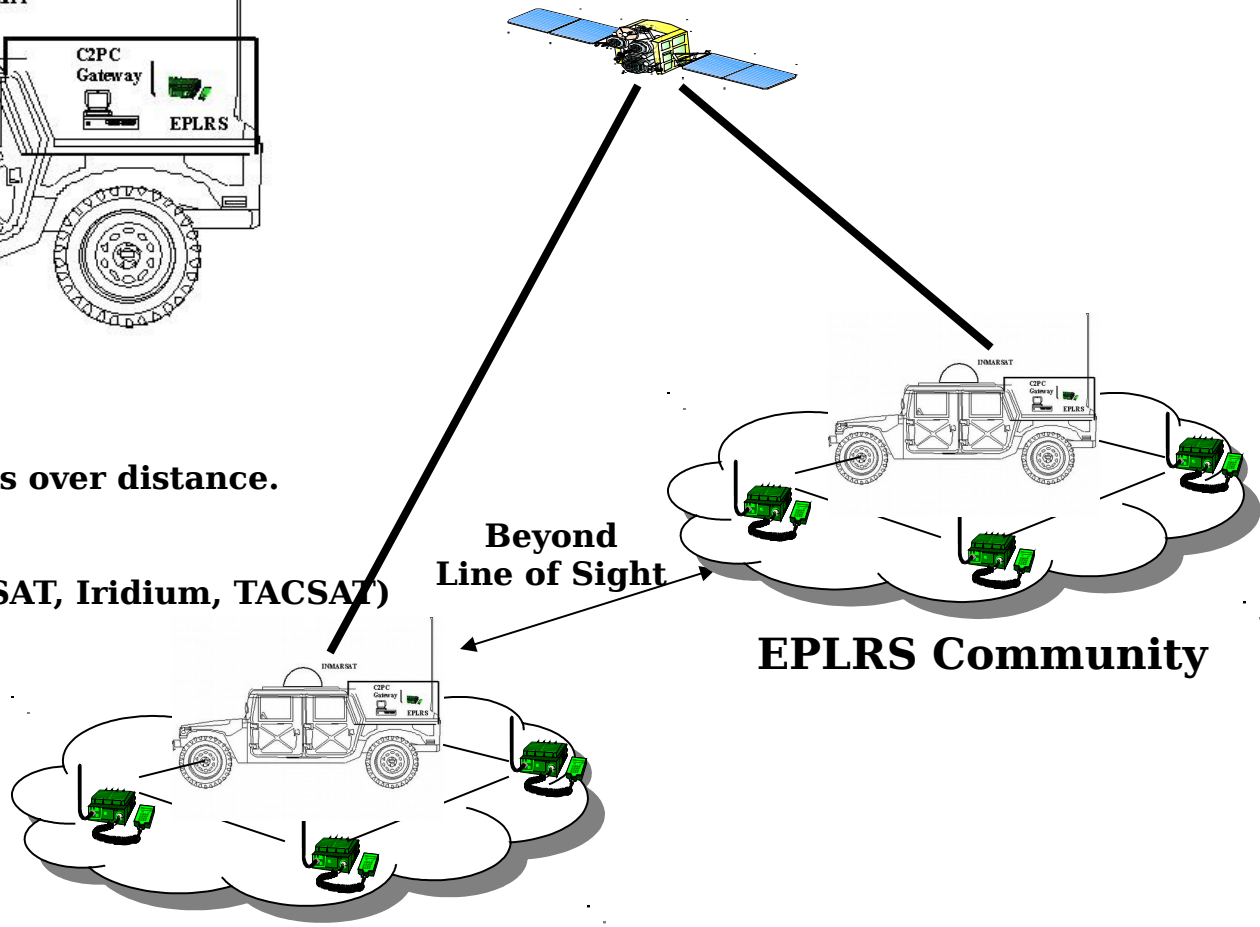
The MEC Net becomes JTR

The USMC To-Be Architecture

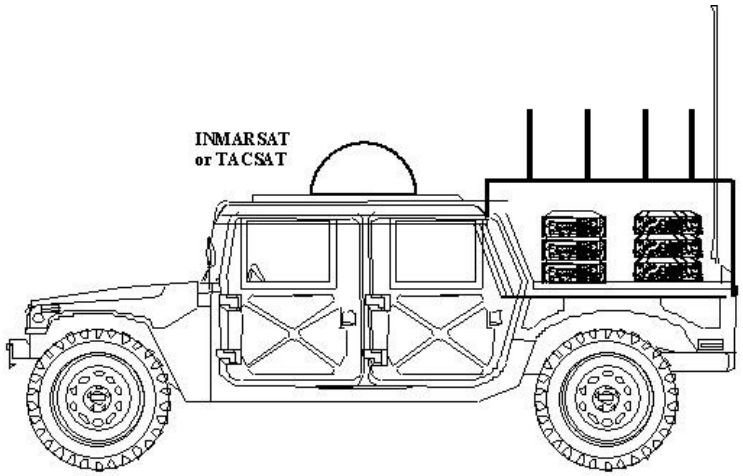
STOM Bridge "Basic"



he Basic STOM Bridge:
urpose: Connects EPLRS Communities over distance.
PLRS Node
2PC Gateway
ver the Horizon connection (INMARSAT, Iridium, TACSAT)

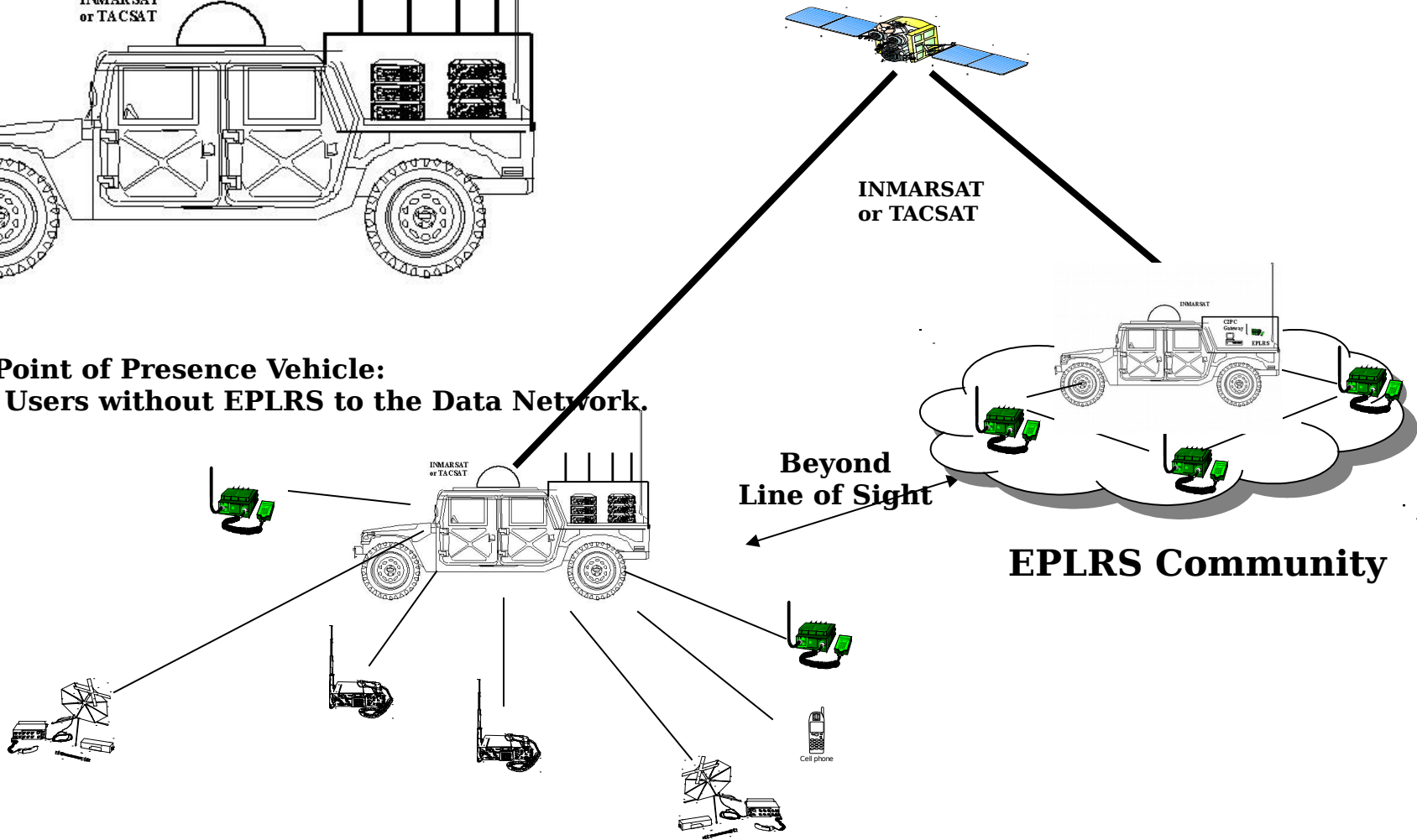


STOM Bridge "PoP-V"

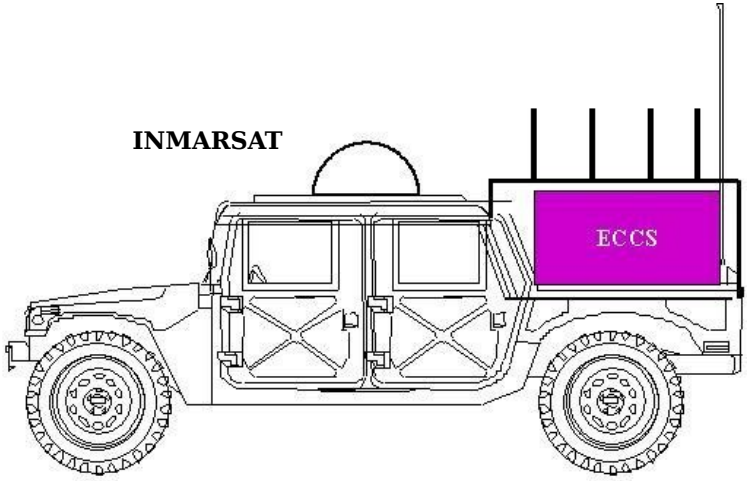


TOM Bridge Point of Presence Vehicle:
se: Connects Users without EPLRS to the Data Network.
GARS
Quick II
AT DAMA

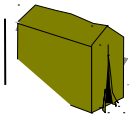
LE
S
m - ETCS



STOM Bridge "Jump C²"



INMARSAT

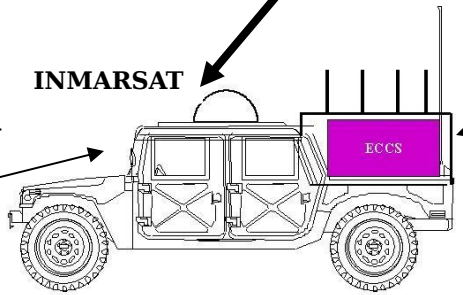


UOC MAIN

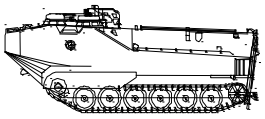
The STOM Bridge Jump C² Vehicle:
Purpose: Maintains COP/SA during Displacement
-Downsized JECCS Capability
-SIPRNet
-NIPRNet
-Telephone
-VTC

Wireless Technology Up to 2 miles

INMARSAT



Beyond Line of Sight

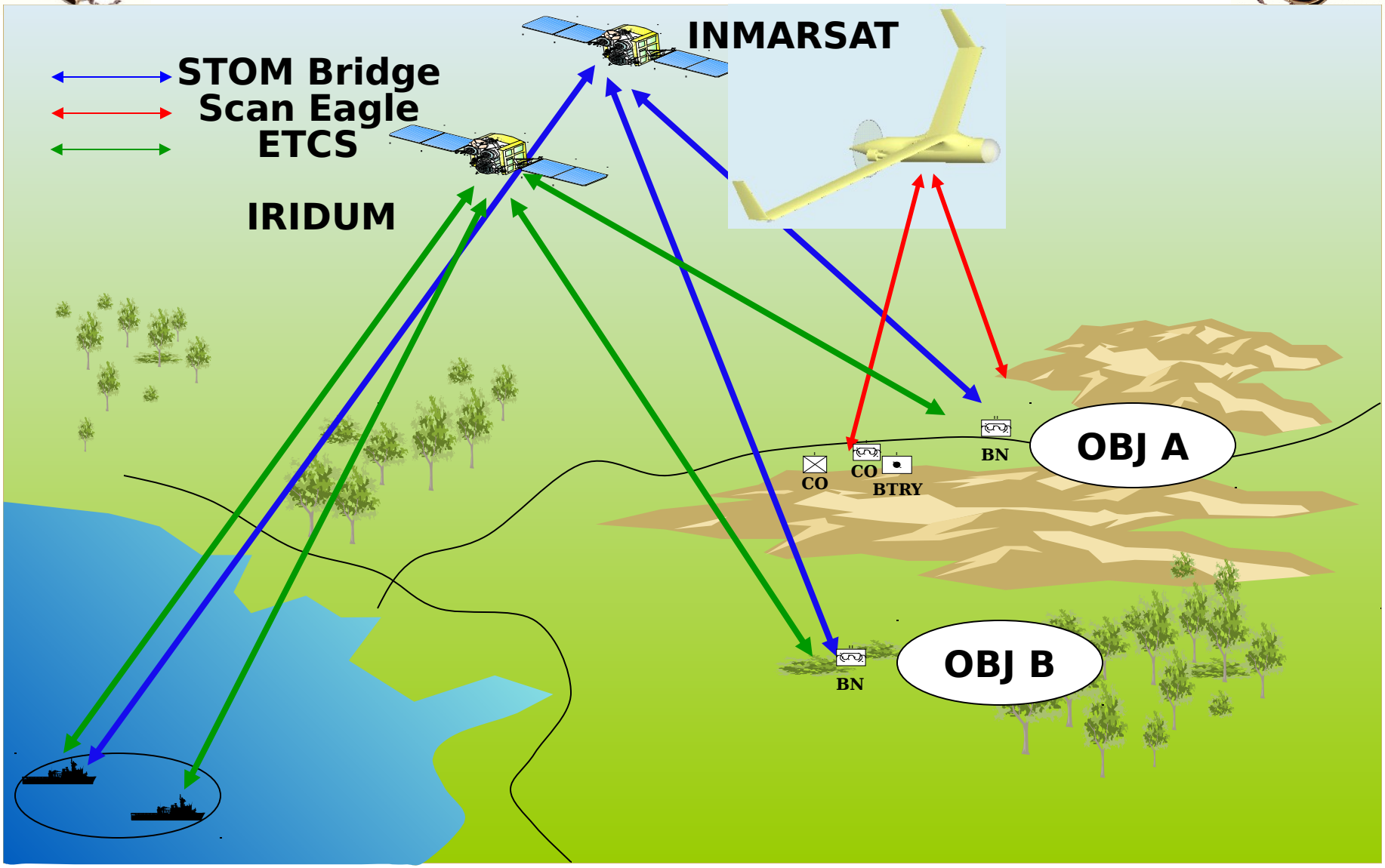


Jump Command Vehicle

ETCS

STOM-Bridge/ETCS

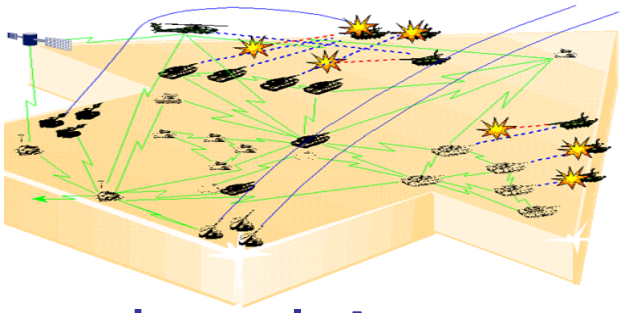
(Proposed Architecture ISO SV-04)



CID

CID CAPABILITY

D is *"The process of attaining an accurate characterization of detected obje the joint battlespace to the extent that high confidence, timely application military options and weapons resources can occur."*



Situational Awareness

(Includes BFT)

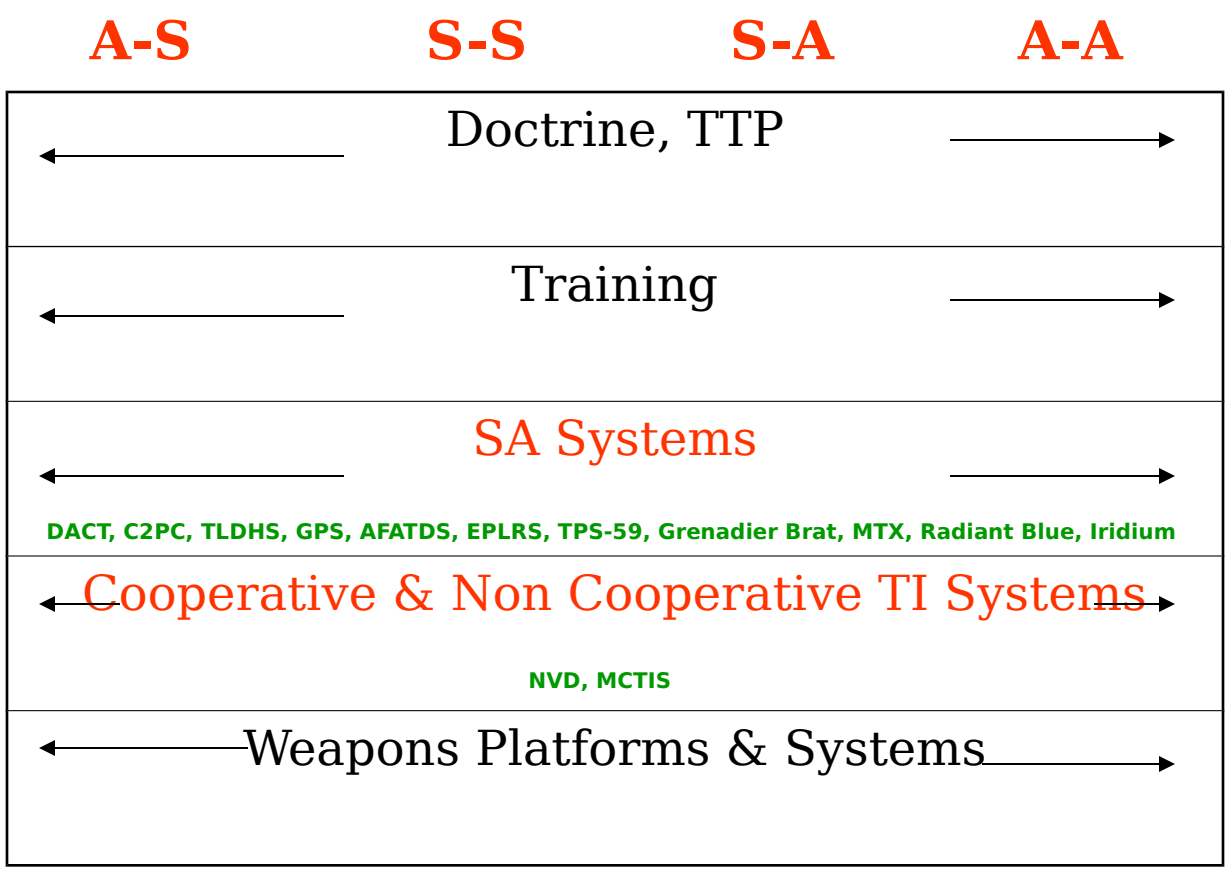
PLUS

Target Identification

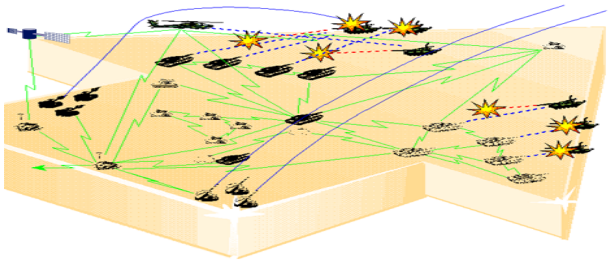
Supports

de Reduction & Increased Combat Effectiveness Across Four Mission
Air-Surface; Surface-Surface; Surface-Air; Air-Air

Combat Identification (CID) Challenge



Situational Awareness & Target Identification



Situational Awareness

- Commanders and Combatants
- Disseminates/Displays PLI Info
  - Friends (BFT)
  - Enemies
  - Neutrals
- "Combat Effectiveness/Force Employment" focused
- Multiple USMC Programs
  - DACT/C2PC primary focus
- Current Issues
  - Improved Interoperability
  - BLOS capability
  - Ground COP in Cockpit
- JBFSA ACTD

Target Identification

- Combatant focused
- Shoot/Don't Shoot Decision for detected objects
- Cooperative TI is "Don't Shoot" (Fratricide Avoidance)
- Current Issues
  - Joint/Coalition Ground Cooperative Target Identification (CTI)
  - Cockpit CTI for ground objects
- CCID ACTD

Near-Term Focus

Situational Awareness

- Joint Blue Force Situational Awareness/ Blue Force Tracking
  - FIOP efforts
    - JBFSA enhancements
  - USA – USMC BFT migration
  - Develop BLOS capability
  - In-cockpit Ground COP
- Investigate feasibility of expanding I MEF COC Baseline COC used during OIF

Target Identification

- Develop CTI capability for ground platforms
  - MCTIS Program
  - Leverage CCID ACTD
  - Coordinate with Army for current and future force
- Support CCID ACTD efforts to Develop/Evaluate Cockpit CTI for ground objects
  - RF Tags
  - Radio-based Combat Identification

CID is a complex capability that must be resolved with the needs of the Joint/Coalition warfighter in mind

Far-Term Solution CID

Sit[illegible] Awareness

- Joi[illegible]uational A[illegible]
  - F[illegible]
    - JB[illegible]
  - USA – USM[illegible]
  - Develop BLOS [illegible]
  - In-cockpit Ground C[illegible]
- Investigate feasibility of expanding I MEF COC
  Baseline COC used during OIF

Target Identification

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  [illegible]t CCID ACTD efforts
  [illegible]/Evaluate Cockpit
  [illegible]l objects

BORN JOINT

CID is a complex capability that must [illegible]olved with the needs of the <u>Joint/Coalition</u> war[illegible]nter in mind